

Note: This meeting summary represents notes from the meeting, not a formal transcript or minutes. It is provided for information of Council members and other interested parties.

Meeting date: October 13, 2003

Location: The Conference Center for the Confederated Tribes of the Grand Ronde, Salem, Oregon

Prepared by: EnviroIssues
(Contact: Kristine dos Remedios, kdosremedios@enviroissues.com)

Attendees: *Council members present:* Bill Dameworth, Steve Downs, Douglas Hunt, Jim Kincaid, Doug Krahmer, Ernie Platt, Laurie Power, Mark Steele, Rod Thompson, Kathryn VanNatta, Mark Yeager

Council members not present: Greg Aldrich, Nina Bell, Dave Cruickshank, Chris Jarmer, Jerry Marguth, Matthew Rea, Mark Simmons, Glen Spain, Travis Williams

Others: Pat Serie, facilitator, Kristine dos Remedios, EnviroIssues; Dennis Ades, Jared Rubin, Manette Simpson, DEQ; Jim Paul, Oregon Department of Forestry; Dave Kliewer ACWA-Portland BES.

**Introductions/
September 15th
Meeting
Summary
Review**

Pat Serie, EnviroIssues, welcomed the group. The September 15th meeting summary was not ready to be reviewed by the Council and would be reviewed for comments at the next meeting on November 3rd.

Serie invited comments from the public; there were none.

Serie then reviewed the agenda.

**Mercury TMDL
Discussion/
Identification of
Remaining
Issues and
Resolution
Strategies**

Jared Rubin, DEQ, reminded the Council of mercury TMDL issues brought up at the September 15th Council meeting to be discussed at today's meeting. The issues included:

- Use of the northern pikeminnow in establishing water column targets
- Origin and accuracy of air source estimates for mercury
- Geographical scope of the mercury TMDL
- Clarification of non-point source categories of mercury loading
- Updated and expanded information on targets for individual fish species
- Exploring an allocation framework based on relative percent contribution (pro-rated system)

The table in the mercury discussion handout lists the 5th, median and 95th percentile. These numbers represent the percent chance that a fish of a certain species would meet the target level fish tissue concentration of 0.3 ppm at the

given water column concentration. For example, at a water concentration of 15.03 ng/l, there would be a 5% chance that a northern pikeminnow taken out of the Willamette Basin would meet the target of 0.3 ppm. Since the last meeting DEQ has added the fourth quarter's data for mercury, which has changed the water column concentrations for almost every species modeled. These concentrations are all based on total mercury.

The Council received information regarding the consumption of the northern pikeminnow, which was questioned at the September 15th meeting. There is no information that says the northern pikeminnow is a predominantly consumed fish in the river, but it is known that people catch and eat the species.

The original Oregon Health Division advisory from 1997 was also included in the handout. Squawfish or the northern pikeminnow and the large-mouthed bass were used in the original listing. The purpose of this TMDL process is to address the 303(d) listing, so DEQ believes that it is important to focus on the northern pikeminnow for the TMDL. The goal is to reduce mercury in the Willamette to a level at which the listing could be removed.

Portions of two reports (Portland BES and Adolfson Associates) from 1996 and 1999 were also included in the handout. These reports show that the northern pikeminnow is one of the most abundant species in the Willamette River and is occasionally consumed. The TMDL is not meant to protect the northern pikeminnow, but to protect the consumer of such species. A graph and listed probabilities for different species were also listed to show the degree of protectiveness for different water column concentrations based on a chosen target species. In order to address the original fish consumption advisory, the DEQ feels that there is no other choice but to select the northern pikeminnow as the mercury TMDL target species.

Rubin also revisited the source characterization pie chart. Additional monitoring is not anticipated and field crews are finished with mercury sampling for this year. Assumptions have been made due to the time frame and budget constraints. There are limitations to the data set and DEQ has tried to be as transparent as possible because of this.

The geographical scope of the TMDL was also explained. The sub-basin analysis will be separated from the mainstem system. For example, legacy mines are a minor source for the mainstem as a whole, but in some areas the mines can account for up to 80 to 90% of the source characterization. There are three sub basins that do not fall under the 2003 deadline. However, loadings are contributed by those sub basins as well as the other nine being examined. DEQ feels it is most prudent and effective to have a system-wide TMDL that includes all point and non-point sources, including those in the three excluded sub-basins (Yamhill, Tualatin and Pudding/Molalla).

Rubin presented four options for sector reductions. The options are as follow:

1. Across-the-board reductions (41.6%). Assumes a negligible decrease in sediment resuspension. Decrease in air (point) not area or mobile.
2. Across-the-board reductions (35%). Assumes (25%) decrease in sediment resuspension. Decrease in air (point) not area or mobile.
3. Prorated reductions for reducible categories. Negligible decrease in sediment resuspension.
4. Prorated reductions for reducible categories. Assumes (25%) decrease in sediment resuspension.

All options reduce total loads to about 72.7 kg/year, which is the goal for the total mercury load in the basin necessary to meet the target level. It was noted that all options have similar allocations for the various sectors.

Other handouts were provided that explain in more detail DEQ's 1999 Air Quality Mercury Emissions Inventory Report and statewide data that were used for the mercury TMDL modeling.

Issues/Concerns

- Is the modeling still based on the August 20th report by Bruce Hope? *Yes, the same report that was distributed to the council. There are editorial comments that need to be added to the document. We are still open and willing to consider comments on the document.*
- I don't want to lose sight of looking at the geographic scope of the TMDL. We also talked about percent contribution. Further work needs to be done to clarify different contributions and levels to expand the data for non-point sources. Third, have we done fish sampling during times when fish are actually caught? In other words, is there a tie between our sampling and harvesting times? Finally, we were also going to look at weighted averages for fish in the food web model, based on amounts of each fish species consumed. Has any thought been given to that issue and is there a level of conservatism there? I am trying to address the 17.5 g per day allocation. *Hopefully many of those issues will be covered in today's discussion.*
- The cutthroat trout water target level is showing a higher target level. *That is related to its diet. The cutthroat trout is not a voracious predator; it eats insects and not other fish species. With the northern pikeminnow or the bass, both of which consume other fish, they will have higher bioaccumulation. Exposure is really through diet. The northern pikeminnow is a much more efficient bioaccumulator.*
- The important thing is trying to interpret how the ppm measure and the percent reduction bring us down so we do not have consumption advisories. *That is a good point and a good transition into the next topic of how these species relate to the consumption advisories. DEQ has proposed to use the northern pikeminnow because the original 303(d) listings were based on the northern pikeminnow.*

- I realize we are trying to get some sort of reduction in mercury to bring the amount of mercury to below the 0.3 ppm level. Since I am representing a tribe, our primary concern is consumption rate. Tribes eat quite a bit more fish. Are we going to be protecting this population? *When the health department submits a health advisory, they are focusing on the larger population, not specific groups. These groups may need to take into account the amounts of fish being consumed as well as the fish advisory.*
- I have a document here that I would like to send to DEQ which discusses how certain levels were set such as the 17.5g of mercury per day consumption advisory and other policies set for human health and water quality standards. *Received.*
- Can you discuss the distribution of the latest set of sampling? It must have been quite skewed to bring down the average of the other three quarters. *The data from the fourth quarter reduced the variance of the data as a whole. The data from the fourth quarter are more in alignment with the original dataset.*
- The original report cites the northern pikeminnow target as 1.68, which is based on three quarters' data. *Yes that is correct.* In the numbers presented today, the northern pikeminnow median level is brought down by almost 20% to 1.36. The fourth quarter data seem to be driving this long term state policy decision. It makes me uncomfortable to see one set of data driving the number down by such a large percentage. What if we had more data, would the data move back up? *We would see some changes in the numbers if we had more data but the changes between quarters would be smaller. The numbers are sensitive to the ratio between total and methyl mercury. It was the high flow of winter that brought the numbers up. If we did have more data, we would be narrowing the variance. The fourth quarter data have made the information more accurate.*
- Are these numbers the averages including the 4th quarter data, or are they the 4th quarter data? *They are the average of the four quarters.*
- Was there a lawsuit driving the TMDL timeline? *EPA has allowed a longer timeline but funding is driving this TMDL to its deadline at the end of this calendar year.*
- It seems like we are making a lot of assumptions and moving forward without a lot of information to complete this TMDL. *There will always be the need for additional information. I do not know that another year of sampling for data will define anything more than what we have now. It is a decision of how to best address uncertainty and work off of what we do know and state what we don't know.*
- The real question may be how much monitoring we need to do in the future and when to revisit the TMDL to ensure it is accomplishing what it was meant to accomplish. *Funding is scarce and nothing is earmarked for this. When new information does come in through other studies or more information from DEQ, refinements of data for sources*

and ambient data, the TMDL can be revisited. That is the spirit of adaptive management.

- I realize the budgetary constraints, but for a point source that gets a NPDES permit, any future data can lead to backsliding of the limits for a point source. Once you get your permit, any future listings, or changes to policies are not viewed in a generous light, even if that condition is based on the best available data of that time. Any raising or lowering of a target level is viewed with suspicion. We should go into this process knowing there may be some backsliding, which can be an expensive process. *We have talked about allocations under NPDES permits and we have floated the concept of bubble allocations for point sources. There is room to refine our analysis to get a better sense of point source and non-point source allocations. There are many discussions taking place.*
- Please provide a further definition of the bubble concept you are thinking about. *Monitoring would be a major element, in order to get a better sense of understanding point sources in the basin. Bubble allocations may be applied to sources that are smaller but reducible. DEQ would like to give credit where credit is due. A percent reduction across the board may not always be fair. Some individuals may have already taken steps for reductions. The bubble concept also leaves room for creativity for source reductions as well.*
- How long would the bubble process take? *It could be spread out into cycles of monitoring, planning and then implementation.*
- How do you make the choice of who makes different percent reductions and how to meet sectors' goals? How do you determine who has to reduce? *Ultimately it falls on DEQ to facilitate sector discussion to determine waste load allocations within the sectors.*
- So you must first determine the sector waste loads and then determine allocations within those sectors? *Yes, if there is a problem with sector-wide reductions then allocations need to be set more specifically within the sector.*
- Does the bubble concept apply to agriculture and forestry? *We have always thought that we would apply allocations by sector. The bubble would apply to the non-point sources as well.*
- How do you account for volume? A 5% reduction for one facility would not be the same in volume reduction as a 5% reduction for another facility. *We are thinking in units of total load. Considering concentration of the effluent is important.*
- Is the department trying to reduce liberation or release or is it trying to reduce the flow into the cycle. *We are thinking about the load into the Willamette system.*
- It is easy to come up with estimates of source allocations through monitoring. What we really need to understand is who can really make reductions and who can't. We need to understand each stakeholder. *The bubble concept gives us some flexibility to do that.*

- As a committee, by the end of the year we need to make sure we are getting these comments solidified as our recommendations. Is this within our scope? As a Council we need to craft our influence on what happens to the TMDL as it is solidified well after we are disbanded as an organization. There are some policy and budget questions that still need to be answered and not everything will be finished before we are gone.
- Are these source allocation figures now final? *We are hoping other jurisdictions, agencies and sectors will help refine this information. We are also looking for information from the agricultural sectors. These values are the best that DEQ can do and we are now moving on from this stage, in consideration of your comments, to developing the mercury TMDL based on these figures.*
- Agriculture is frustrated with what is being allocated to them in the source allocations simply because this information is being based on one sample from one event in a single location. We have been speaking with the Department of Agriculture to clarify what this means to us but now we are on the defensive to prove these figures are wrong. We understand the problem of not having the ability to do more sampling, but agriculture is concerned. How much of that one storm event, sediment resuspension and erosion was from another source that had nothing to do with the agricultural activity in the area? The agricultural industry wants to work with this issue and do its best to implement management practices. This process gets frustrating when this kind of information gets published that can be interpreted as agriculture not doing their part.
- For the source allocations, what sectors are segments that will be given a permit at some time in the future? What sectors are reducible? *Some things are harder to reduce, such as sediment resuspension, but most all are reducible. POTWs, industrial, air point, agricultural and urban runoffs are all sources that can be reduced.*
- Does the mercury source allocation pie chart include the three excluded sub-basins? *Yes.*
- Are any of the excluded sub-basins listed on the 303(d) for mercury? *Just the Willamette.*
- Have we been targeting the three excluded sub basins and do they know this? *Yes we have been targeting them all along. Some representatives from those sub basins have been present at these meetings. DEQ does need to do some outreach to the designated management agencies (DMAs) to inform them that this process may have a potential to affect them.*
- Have there been fish advisories for the Tualatin? *No I don't believe so. I wonder what the mercury contribution is there if there has not been a fish advisory. This pie chart does look at those sources as well.*
- Where have all the fish been caught that caused the fish advisory, throughout the system or in specific areas? *There are data from most of*

the basin and a lot of data from specific areas such as the reservoirs and the Newberg pool.

- *What if we do all of this work and we still have problems in specific areas? If hot spots emerge and we have done all we can in the mainstem, it will become an area to focus on as follow up to the TMDL.*
- *All of the options for source reduction allocations assume the northern pikeminnow median level water column targets. Yes, that is correct.*
- *Options one and two have a decrease for the atmospheric deposition of air sources and it does look like you have reduced loads for area and mobile sources. We have targeted those categories by considering what is deposited on the landscape. That is non-point source control.*
- *It would be helpful to have an explanation of the policy choice made to use the median levels and the northern pikeminnow as the target species. This will contribute to the success of the policy's acceptance by EPA and the public. DEQ plans to proceed with the northern pikeminnow because it is consistent with the original fish advisory.*
- *It would be helpful to have the data and methodology on how you calculated these option numbers and target numbers. Staff notes to back up the summary presented would be valuable to offer a richer description of each option and the rationale and staff thinking behind them. A memo that describes the basis for the math and some explanation will be provided by the end of the week to the Council.*
- *We did have some principles for allocation that we discussed before and we have never come back to those principles. We can put those out to the group again as a reminder of what we talked about earlier to aid our decision making.*
- *What kind of timeframe for regulatory enforcement of mandatory reductions do you see? We do need to understand the time frame to explain to our industry the reductions. The first question will be when and then how, why and what are the other sectors doing. It is important to understand the parameters for this as it is becoming more real. I can say that it would not be immediate, especially with the bubble process.*

**Drafting
Process for
Water Quality
Management
Plan**

Manette Simpson, DEQ, gave a brief overview of the Water Quality Management Plan (WQMP) drafting process. Elements in the final TMDL document will include all of the TMDL elements, including scope, pollutant identification, loading capacity, margins of safety, source and load allocations and a WQMP.

The WQMP is required to describe the pollution problem, identify goals and objectives, management strategies, timelines and schedules. The WQMP also identifies Designated Management Agencies (DMAs) that will need to submit Implementation Plans (IPs) to DEQ.

Implementation Plans are required to address the management strategies that DMAs will employ to meet the waste load allocations and load allocations set in the TMDL. In addition, a timeline for implementing those strategies needs to be included as well as a way to monitor the effectiveness of the plan.

DEQ is required to submit a WQMP to EPA with the TMDL. The WQMP is required to identify the DMAs who are then required to develop IPs. The IPs are to be submitted to DEQ within 12-18 months after DEQ's Director approves the TMDL. DEQ then reviews and approves the IPs.

Simpson explained that DEQ is meeting with the appropriate Councils of Government (COGs) to employ their expertise to help the counties and cities required to develop an IP as a result of this process. Instead of requiring 98-100 separate IPs, which would be difficult to review and coordinate, the COGS would develop joint IPs between different jurisdictions. This coordination also corresponds with the concept of having a basin-wide and holistic implementation of the TMDL. The 319 grant funding window is open until 10/14/03. The 319 grant program is funded by EPA but administered by DEQ. The program is intended to fund nonpoint source pollution improvement projects, which could include development of implementation plans. Lane Council of Governments has gone forward with a 319 grant request while the other two COGs have decided not to. DEQ recognizes that it did not give the COGs enough time to work with their membership to clarify the TMDL process and work with individual parties in order to fully take advantage of the 319 grant funding source.

The next steps are to have the draft TMDL and WQMP by the end of 2003 and to have the DMAs complete IPs by March 2005.

Issues/Concerns

- You have in the WQMP a requirement for a timeline for the implementing strategies. What are you going to put there in the document? *The WQMP will provide broader, more 'big picture' information while the implementation plans provide specific details. Some agencies, depending on size and expertise, will take longer to get an implementation plan together and implemented. It is the goal to have a plan from the DMAs within 12-18 months once the TMDL is approved.*
- Where in this process does the discussion of the food web model come in? *We envision a separate chapter within the TMDL document. It is a TMDL topic.*
- I am concerned that by definition we have a fish consumption mercury problem. We also have a public accountability piece that I worry about. We have numbers here that appear as if they are scientifically based. There are so many assumptions in this process and they seem to assure us that we are going to meet our targets. Where in this process does DEQ do something to clarify, refine and in the future prove these

numbers to be true? *The TMDL does go to public review and EPA comment. It is our responsibility to put out the best analysis possible, using models such as the food web and other scientifically based assumptions.*

- The total and methyl mercury ratio is a large problem and a major source of uncertainty. DEQ needs to have a commitment to spend more time monitoring instead of passing ordinances that cost a lot more time and more funding when they may not actually work. We should solidify the scientific basis for the TMDL.
- When DEQ identifies DMAs, where do you draw the line and when does the COG become a DMA? *DMAs are actually legally responsible for developing the IPs. It is DEQ's hope that the COGs will provide coordination and water quality program integration for their smaller members that do not have resources.*
- EPA does not have to approve the WQMP. *That is correct, not the WQMP.*
- In the past it was suggested that a Section 7 consultation would be required for the TMDL. *Possibly for standards development but not implementation.*
- DMAs are required to submit an IP within 12-18 months after the DEQ director approves the TMDL. What is the timeframe for EPA to go through their approval process for the TMDL? If EPA does not approve the TMDL would the IPs still be developed? *No, if EPA does not approve the TMDL, the IPs would be delayed. The 12-18 months is the traditional time frame. Hopefully we will have all of the IPs within that time frame but it may not be possible for all jurisdictions.*
- Will it take EPA an extensive amount of time to review the TMDL? We need to make sure that we are not requiring IPs before EPA's approval. *Yes, this is a good point. This IP requirement is new. In reality, as soon as the DEQ director signs the TMDL order, the IP requirements apply to the TMDL. We will have to report back with the answer to this policy question.*
- How does the IP work on the agricultural side of things? *That is implemented through the 1010 plan process.*

**Draft Allocation
for
Temperature
TMDL**

Dennis Ades, DEQ, gave the Council an update on the temperature modeling for the Willamette Basin. The latest data came in from Portland State University the week before. Model simulations are now based on 2001 and 2002 data.

Most of the waters in the lower Willamette exceed the 68, 64, 55 degree F temperature criteria for migration, rearing and spawning periods respectively. The allowable temperature increase to fall under the criterion of no measurable increase is still 0.25 degrees F.

After two years of extensive data collection, with the help of other agencies, Portland State University, and other sectors, preliminary results are available. Daily temperature values and flow fluctuations were analyzed. Two scenarios were presented. Both models used reservoirs bi-op flows. One (system potential two) assessed the selective withdrawal feature, and one did not (system potential one). If Section 7 ESA consultation recommendations are implemented, system potential one is what is likely to be observed in the future. System potential two may be observed in the long run.

For system potential one, the major differences between the existing river conditions and the three simulations is due to slight changes in flow in the river. In system potential two, the major differences are observed in the fall when selective withdrawal at the reservoirs would likely have the greatest influence on downstream temperatures.

Historical data (7Q10) as well as simulations of flows in the future were examined. The data was then compared to the system potential flows. The 7Q10 flows were found to be much lower than simulated for 2002. DEQ will need to compare flows of the recent past, add to it a shade component, and define system potential. Reservoir and point source activities will then be examined to determine how much a facility can release into the river without compromising the temperature limits of the river.

A bubble concept may be used to address uncertainty for the temperature TMDL. There are potential sources in the basin without sufficient data to know whether or not they are major contributors to temperature levels in the Willamette. Allocations will be made for these sources of uncertainty and as more information is quantified, such bubbles can be eliminated or added to the margin of safety or reserve capacity.

Issues/Concerns:

- System potential one assumes bi-op flows? *Yes, it assumes the bi-op flows. The line with boxes in the figures on pages 4 through 8 of the handout symbolize what is actually observed in the river and the other lines represent model simulations.*
- For the purposes of the analysis you have aggregated the dams with other point sources. Are you considering dams point sources for modeling? *We are looking at the differences between scenarios that involve changes in flow and changes in temperature. We assigned a temperature to the dams. Reservoir operations define model boundary conditions and are treated separately from point sources.*
- Looking at the system potential two simulation, what is happening at Julian Day 250? *Three different scenarios are on top of each other on the chart. The existing point source graph is substantially higher.*
- When you say sensitive to the Corps project flows, do you mean temperature? *Yes, temperature and volume of the flow.*

- You are making some assumptions about flow and what comes out of the dam. How do you extrapolate what comes out of the dam and into the river? *We used the same model that is calibrated to these flows. We used the same shade assumptions made in the past.*
- Have additional assumptions been made in system potential one and two? *Yes, we had to rely on existing information and minimal modeling of the tributary inputs. We do want to look at some sort of worst-case scenario for a given point source. We can then look at the effects of those sources before and after flow from that point source.*
- How did you come up with the temperature of what the dams could potentially be adding to the river system? *We record maximum values.*
- What does the Corps think about these assumptions? *DEQ knows they are unhappy that no provisions are being made for storage of heat and the idea that they will have to comply with the CWA like everyone else. DEQ is also not giving them any credit for flow augmentation or providing a way for them to dissipate heat. DEQ has agreed to work with the Corps and try to develop better load allocations. The Corps is worried that they will have a small load allocation they cannot meet, giving other parties another reason to argue for the Corps projects to be taken down.*
- Are the effects of the sewage treatment plant flows within their mixing zone? *No this is the measurable effect in the entire river, not just in the mixing zone.*
- We should be considering permit level and nothing higher, unless they ask for an increase, which it doesn't look like they are going to get one. *No, they are not likely to get a permit level increase.*
- Assuming that Eugene cannot stop its growth within its UGB or offload some of its flow, what temperature do they have to achieve to reach the 0.25F increase level? *There are two ways to achieve this. To recognize their design flows and cap them at a temperature limit, or to measure flow volumes. DEQ tends to assign a thermal limit, which is the product of flow and temperature.*
- The models are assuming we have an accepted thermal potential with system potential one or potential two that we are trying to achieve. I am not sure that those runs reflect the historic river patterns to an extent that they are what we want to base our work on. *Selection of the system potential option is a policy decision facing DEQ, in consultation with the Council and the Corps.*
- What is the natural condition of the river? *We have to simulate that for the purposes of the TMDL. We need to find what we are defining as system potential and we are required to look at shade potential. We do not need to look at future flows. We can build on the 7Q10, 32-year dataset. We are still challenged with interpreting the 2001 bi-op flows, as it was a very low flow year.*
- I am not ready to make a decision on how to move forward today, especially without the Corps present since they are not pleased with the

scenarios being examined. It would be helpful to look at the other models you have. I would also like another description of system potential one and two. I do not know what each simulation involves. *The temperature working session is now being designed. If there are items that need to be explained in more depth it is important to let DEQ know so that information can be provided and explained in that working session.*

- What shade conditions are reflected in system potential one and system potential two? *It is the same system potential shade.*
- How unique is Eugene as far as discharge and where it is located in the basin? Is Eugene a worst-case scenario? *Yes, Eugene is a sensitive area in relation to its location near the reservoirs. It is also located in a low mixing area, with a ratio of about 12 to 1. It is also a relatively large community. It is close to a worst-case scenario.*
- What do you do with a no dam scenario? *It gives us an idea of system potential temperatures. There may be areas where we need to have higher margins of safety, given information such as knowing an area is a historically habitat rich area.*
- Is it a policy decision to look at temperature increases or thermal loading? Does one transfer to the other and do we need to decide which one governs? *We are looking at how the river responds to heat sources (thermal loads) and transferring that information into units of temperature increase.*
- I would like to see DEQ bring back a summary of the waste load allocations we discussed before for temperature. Does DEQ still want Council input and does the department have the last cut? Is the policy going to be location driven? If so there are going to be winners and losers and is the Council going to accept that premise? How are we going to resolve that conversation? If you have a large dilution rate a source does not have the same impact as a source that is discharging into a small tributary. In that sense the temperature TMDL is location driven. It is difficult to mitigate offsite when we are setting policies for the system as a whole. Shade is another location driven factor. We do need to decide if the TMDL has the same requirements in the upper river as in the lower river.
- Is there another way besides a location driven approach that we can do this? Equity and fairness amongst the sources is important. DEQ needs to decide what level of flexibility it is going to grant to a point source on a tributary that has basin-wide effects and what considerations are made to allow some margin of safety and creativity for mitigation considering other factors such as economic depression in the town the plant is located in. There are a lot of questions and criteria that should be used to drive load allocations. *DEQ is considering this.*

Remaining Questions/ Feedback

Serie asked for additional thoughts and comments. None were given. Some action items were identified to be accomplished before the next meeting:

- Expansion on the mercury bubble allocation methodology

- Provide data for the fourth quarter mercury analysis
- Provide staff notes on how options 1-4 were generated for mercury and the pros and cons of each for different stakeholders
- Re-introduce the principles developed earlier in the process for how to lay out the TMDL
- Follow-up on adaptive management and monitoring component for TMDL implementation
- Revision of labels on the temperature graphs for clarification
- Description of the waste load allocations for temperature
- Description of system potentials one and two

The meeting was adjourned.

Upcoming 2003 Meetings

November 3, November 17, and December 8.

The upcoming meetings are scheduled from 10:00am – 4:00pm in recognition of the amount to be accomplished in the remaining few meetings before the end of December.

Handouts

Agenda

Mercury Discussion Items, Background Materials for Fish Consumption in the Willamette Basin, Mercury Source Characterization Pie Chart, Mercury Source Reduction Options Summary, Summary Materials on Statewide Air Quality Monitoring for Mercury, Oregon DEQ 1999 Air Quality Mercury Emissions Inventory Report

Water Quality Management Plan Presentation Handout

Temperature TMDL Presentation Handout